**AP Statistics- Core Assessment 1B – Practice**

**Show all of your work. Clearly indicate the methods that you have used. You will be graded on the correctness of your methods, the accuracy of your results, and the quality of your explanations. Any decimal answers should be correct to three decimal places unless noted otherwise.**

Below are two weekly payrolls for McDonald’s and Burger King in the year 2002.

|  |  |  |
| --- | --- | --- |
| **Weekly Payroll 2002** | | |
| **McDonald’s** |  | **Burger King** |
| 2 | 9 |  |
| 95 | 10 | 6 |
| 8410 | 11 | 12 |
| 99732 | 12 | 6699 |
| 9875430 | 13 | 114 |
| 7755 | 14 | 7788 |
| 43 | 15 | 24688 |
|  | 16 | 56778999 |
|  | 17 | 278 |
|  | 18 | 6 |
|  | 19 | 22 |
|  | 20 | 9 |
|  | 21 | 2 |
| 5 | 22 |  |
|  |  |  |
| 10 | 7 | = $107 |

**McDonalds**:

*n* = 24

*X*min = 92

Q1 = 116

Med = 129.5

Q3 = 138.5

*X*max = 225

Mean = 131

*s* = 24.21

**BK**:

*n* = 34

*X*min = 106

Q1 = 131

Med = 157

Q3 = 169

*X*max = 212

Mean = 154.97

*s* = 25.897

a. Based on the **stemplot only**, describe and compare the distributions of McDonald’s salaries and Burger King salaries.

b. One McDonald’s employee was paid $225 per month. Using the shape of the distribution of McDonald’s employees as a guide and the appropriate summary statistics, carry out a suitable calculation to indicate whether the data value for this employee is an outlier.

c. Jen, a McDonald’s employee that is not listed above, was paid $140 per week. Assuming that the distribution of McDonald’s employees is normal with the same mean and standard deviation as above, about what percent (to the nearest tenth) of McDonald’s employees were paid **more** than Jen?